

Rubric Element III: Program Effectiveness

1. Evidence of Program Effectiveness

Cambridge Educational Services' evidence of program effectiveness in increasing student achievement.

Cambridge has conducted and has been involved in a number of studies that validate the effectiveness of its materials and instructional methods, especially with low-income and minority student populations (Schaap, T. [2003]. Township High School District 214 Analysis. *Internal District 214 (Study on course effectiveness).*). Students in the general student population and in specifically targeted populations have consistently measured a minimum 0.5 standard deviation improvement using ACT, PLAN, EXPLORE, GMADE, GRADE, SAT 9, and ITBS assessment.

Cambridge programs are particularly capable of accommodating physical, mental, emotional, and cultural special needs that students possess. Competent instructional staff delivers instruction on a personalized basis using materials designed for students of differing ability levels. Course instruction ranges anywhere from additional skills exercises in a particular area to more difficult, advanced concepts for students who are achieving at a higher level. Students who complete Cambridge tutoring do so with an increased academic self-efficacy and a sense of empowerment, believing that they will meet their personal goals including college, employment, and graduation. This belief contributes to student motivation, retained knowledge of math and reading skills, and increased test scores.

Quality of Instruction

Highly qualified instructors utilize test data to target specific areas in which students show the greatest opportunity for improvement. At the beginning of all courses, each student takes an official ACT, PLAN, EXPLORE, GRADE, GMADE, SAT 9, or ITBS test as a pre-assessment to provide a valid indicator of his or her abilities and skill gaps. Instructors receive a detailed diagnostic assessment report that illustrates individual student needs and aggregate classroom data grouped by high, medium and low performance levels. This pre-test data is considered when developing each student's Individualized Tutoring Plan (ITP) along with the school's Personalized Education Plans (PEP) to target achievement gaps in accordance with the Michigan State Academic Standards.

Aggregate Cambridge assessment reports are grouped according to high, medium, and low ability levels. Student data is disaggregated into the bottom 25% (low), middle 50% (medium) and top 25% (high). This distribution parallels a bell-shaped curve. In the case of secondary and middle school students it also overlaps with ACT/PLAN/EXPLORE standards for transition skill sets. Students receive instruction that is targeted toward their specific needs (skill range) at the appropriate level for student comprehension or mastery.

In a 40-hour tutoring program, it is not possible to target and improve an entire grade level of math or reading curriculum. To make efficient use of time, instructors compare low to medium level student "skill gaps", or alternatively medium to high level student "skill gaps".

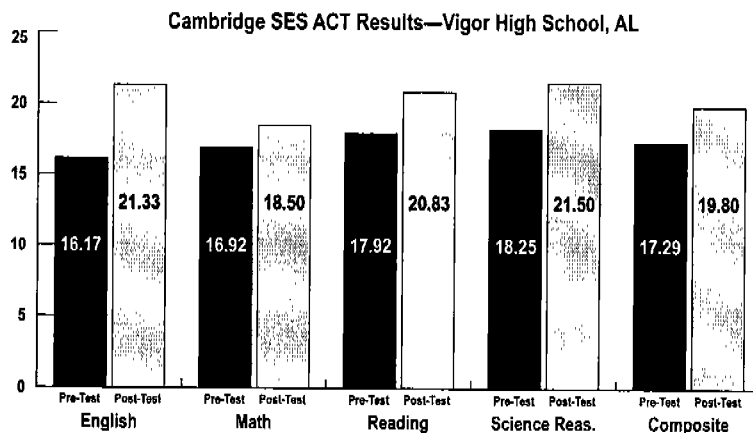
Some reading skills require several years to develop. This is illustrated by observing extremely small improvement on the same question from low to high-level students. Other skill areas show great improvement from low to high-level students. We target the great improvement areas to maximize the short-term score gains.

Individualized lesson plans target the skill gaps of each student as well as the group to which that student is classified. Instructors will then refer to their materials in order to fine-tune their course based on the prescribed skill gaps.

The Cambridge's SES Site Coordinator and/or the Cambridge tutor will be available to meet with parents and school officials after the pre-test to finalize a tutoring plan. This meeting would allow Cambridge to discuss our assessment results and existing student data (PEP, IEP).

Evidence of Effectiveness*

An example of a positive impact on students' performance on standardized tests was subsequent to an SES NCLB program that was delivered at Vigor High School in Prichard, AL (Mobile County Public Schools) from December 2003 to May 2004. In this particular case, the class saw significant gains on both ACT sub-scores and on their ACT composite score from pre- to post-test. In a class that was predominantly low-income and minority, students went from 16.17 to 21.33 in English; 16.92 to 18.50 in Math; 17.92 to 20.83 in Reading; 18.25 to 21.50 in Science; and made composite gains of 17.29 to 19.80.



Currently, more than 1,500 students in Chicago are enrolled in Cambridge's SES program to improve their basic skills and test scores. Although final program data is not complete, provisional data shows that high school students at thirty schools saw improvements that averaged more than two points on the ACT. In several specific high schools, student improvements were as high as six (Michelle Clarke) or eleven points (Englewood). Middle school students averaged one point or higher score increase on the EXPLORE math and reading diagnostics. Elementary school students showed significant score increases on the ITBS. These are all significant improvements for a large body of students predominantly coming from an underachieving, low-income background. Information for specific Chicago Public schools can be found at the end of the application as Attachments 1-3.

Outside of SES, Cambridge programs also have documented gains using teacher-written reports. Since the fall of 2004, a Floyd County (Georgia) Board of Education program has been using Cambridge's curriculum and Cambridge-trained instructors and has certified student gains in skills that overlap with state learning standards. This review course focuses on assessing individual student skills before moving on to new subject areas and has contributed to significant qualitative and quantitative gains. (In 2004, Floyd County was recognized by Georgia Governor Sonny Perdue for having achieved some of greatest gains statewide as measured by the SAT.) Additional letters of recommendations citing the on-going effectiveness of Cambridge programs can be found at the end of the application as Attachments 4-9.

*Information contained in this application is actual SES program data obtained from Mobile and Chicago Public Schools. This information is confidential and cannot be distributed to any news media, or other public entity without the official permission of Cambridge Educational Services.

2. Description of the high-quality, research based instruction that supports the program

Research has shown that the Cambridge Six-Step Approach adds significantly to the student learning process. Research evidence supports the effectiveness of the Cambridge program, which is measured by means of such standardized instruments as the ACT, EXPLORE, GMADE, SAT 9 and ITBS assessments. Research regarding the program's validity, methodology, and utility to various student populations include: building skills, test content, familiarity, and reducing anxiety.

Supporting research includes:

Allalouf, A. & Ben-Shakhar, G. (1998). The Effect of Coaching on the Predictive Validity of Scholastic Aptitude Tests. *Journal of Educational Measurement*, 35, 35-47.

Anastasi, A. (1981). Diverse effects of training on tests of academic intelligence. *New directions for testing and measurement*. San Francisco, CA: Jossey-Bass.

Bangert-Drowns, R.L., Kulik, J.K., & Kulik, C.C. (1983). Effects of coaching programs on achievement test performance. *Review of Educational Research*, 53, 571-585.

Bondy, A.S. (1988). Effects of reviewing multiple-choice tests on specific versus general learning. *Teaching of Psychology*, 5(3), 144-146.

Boyd, R.T.C. (1988). *Improving your test skills*. Washington, DC: Amer. Inst. for Res.

Flippo, R.F. (1988). *Test Wise: Strategies for success in taking tests*. Carthage, IL: Fearon Teacher Aids/Simon & Schuster.

Foster, S.K., Paulk, A. & Dastoor, B.R. (1999). Can we really teach test-taking skills? *New Horizons in Adult Education*, 13(1), 3-13.

Kirkland, K. & Hollandsworth, J.G., Jr. (1980). Effective test-taking: Skills acquisition versus anxiety-reduction techniques. *Journal of Consulting and Clinical Psychology*, 48, 431-39.

Messick, S. (1981). The controversy over coaching: Issues of effectiveness and equity. *New directions for testing and measurement*. San Francisco, CA: Jossey-Bass.

Messick, S. & Jungeblut, A. (1981). Time and Method in Coaching for the SAT. *Psychological Bulletin*, 89, 191-200.

Samson, G.E. (1985). Effects of training in test-taking skills on achievement test performance. *Journal of Educational Research*, 78, 261-266.

Rubric Element IV: Evaluation/Monitoring

1. Describe how the program will be monitored for effectiveness.

A primary measure of the effectiveness of Cambridge's instructional services is student improvement on designated assessments (ACT, PLAN, EXPLORE, GMADE, GRADE, SAT 9, and ITBS). These tests are official form codes administered in accordance with the test-developers' guidelines, and procedures adhere to the *Standards for Educational and Psychological Testing*.

These form codes are nationally normed tests that are administered to tens of thousands of students on an annual basis, yielding reliable data for instructors to gauge student improvement. Student gains are verified by pre- and post-assessments, and specific basic skills that are linked to the Michigan State Standards are also certified throughout the course of the program.

Cambridge also utilizes a variety of internal quality controls to continuously monitor the effectiveness of the program. These quality controls include the following: teacher evaluations, in-service meetings, annual trainings, post-course debriefings, the collection of student homework, and the recording and documenting of all student assessment results. Parents, school districts, and schools are given both individual and aggregate reports for each student.